

Maths Task

Below the Top Tips are 3 separate tasks:

- Task 1 focuses on the fluency of addition and subtraction using the formal written methods (column addition and column subtraction). Remember to set your calculations out clearly and use the inverse to check.
- Task 2 focuses on problem solving. Use the key information in the questions to identify what operation (subtraction or addition) you need to use to calculate the answer.
- Task 3 focuses on reasoning. When answering these questions, you will need to explain and justify your answer using workings out and examples to support you.

Please use a calculator at the end of each task to check your calculations. Remember if you get one wrong, try it again in a green pen.

Top Tips:

Column Addition

Start with the ones column. Add the numbers in the ones column. If the answer is 10 or above, partition and give to the next number. Work your way along the columns using the same method. (See example)

789 + 642 becomes

$$\begin{array}{r} 789 \\ + 642 \\ \hline 1431 \\ \hline \end{array}$$

Answer: 1431

Addition

Add
Addition
Total
Plus
Sum of
Combined

Here are some examples of questions to challenge your child further:

$$? + 1,245 = 8,000$$

$$8000 - ? = 1,245$$

A school has 4,564 children and 154 staff. How many children and staff attend the school?

Subtraction

Minus
Take away
Reduced
Difference
Subtract
Subtraction

Column Subtraction

Start with the ones column. Subtract the numbers in the ones column. If the top number is smaller than the bottom number you need to borrow from the next column. (see example)

$$\begin{array}{r} 8 \overset{!}{9}48 \\ - 263 \\ \hline 685 \\ \hline \end{array}$$

More on the floor, borrow from next door, more on the top, go don't stop!

Task 1 – Fluency

Complete the calculation.

| Th | H | T | O |
|-----------|-----------|-----------------|-----------------|
| 1000 1000 | 1000 | 100 100 100 100 | 100 100 100 100 |
| 1000 1000 | 1000 1000 | 100 100 100 100 | 100 100 100 100 |
| + | | | |

| | Th | H | T | O |
|---|----|---|---|---|
| | 2 | 1 | 7 | 6 |
| + | 3 | 4 | 5 | 8 |
| | | | | |

Use place value counters to calculate $455 + 436$

| H | T | O |
|-----------------|----------|-------|
| 100 100 100 100 | 10 10 10 | 1 1 1 |
| 100 100 100 100 | 10 10 | 1 1 |
| | | 1 1 1 |
| | | 1 1 1 |

| | | | |
|---|---|---|---|
| | 4 | 5 | 5 |
| + | 4 | 3 | 6 |
| | | | |

Use place value counters and the column method to calculate:

$$5,783 - 844 \quad 6,737 - 759 \quad 8,252 - 6,560$$

$$1,205 - 398 \quad 2,037 - 889 \quad 2,037 - 1,589$$

Write each calculation in the correct column.

| | | |
|---------------|-----------------|-----------------|
| $712 + 394$ | $1,312 + 2,527$ | $2,350 + 3,760$ |
| $1,995 + 712$ | $3,044 + 2,372$ | $17 + 953$ |

| No exchange needed | One exchange | More than one exchange |
|--------------------|--------------|------------------------|
| | | |

Write one more calculation of your own in each column.

Complete the models.

| | |
|-----|-----|
| 457 | 187 |
| | |

| | |
|-----|-----|
| 178 | 349 |
| | |

?

286 356

Complete the bar models.

| | |
|-------|-----|
| 1,185 | 405 |
| | |

| | |
|-------|-------|
| 3,535 | 2,634 |
| | |

| | |
|-------|-------|
| 3,264 | 1,655 |
| | |

Complete the additions.

a)

| | Th | H | T | O |
|---|----|---|---|---|
| | 6 | 0 | 7 | 5 |
| + | | 9 | 4 | 8 |
| | | | | |

b)

| | Th | H | T | O |
|---|----|---|---|---|
| | 4 | 7 | 1 | 2 |
| + | 3 | 4 | 9 | 2 |
| | | | | |

c) $3,784 + 2,526$

d) $79 + 654 + 1,312$

Dexter buys a laptop costing £1,265 and a mobile phone costing £492
How much do the laptop and the mobile phone cost altogether?

Match the calculations with a good estimate.

| | |
|-----------------|-----------------|
| $345 + 1,234$ | $3,000 + 6,000$ |
| $2,985 + 6,325$ | $3,500 + 1,200$ |
| $3,541 + 1,179$ | $350 + 1,200$ |
| $2,135 + 6,292$ | $2,000 + 6,000$ |

Task 2 – Problem Solving

Complete the statements to make them correct.

$$487 + 368 \quad \bigcirc \quad 487 + 468$$

$$326 + 258 \quad \bigcirc \quad 325 + 259$$

$$391 + 600 = 401 + \underline{\quad}$$

Explain why you do not have to work out the answers to compare them.

1,235 people go on a school trip.

There are 1,179 children and 27 teachers. The rest are parents.

How many parents are there?

Explain your method to a friend.

Ron is counting down in 25s from 790. Will he say 725?

Explain your answer.

Complete:

| | Th | H | T | O |
|---|----|---|---|---|
| | 6 | ? | ? | 8 |
| + | ? | ? | 8 | ? |
| | 9 | 3 | 2 | 5 |

Mo says that there is more than one possible answer for the missing numbers in the hundreds column.

Is he correct?

Explain your answer.

Amir has £1,000



He buys a scooter for £345 and a skateboard for £110

How much money does he have left?

Show 3 different methods of finding the answer.

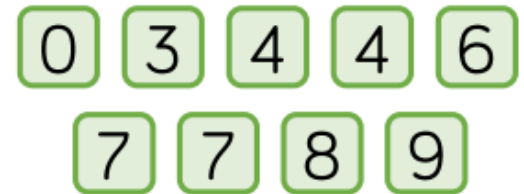
Explain how you completed each one.

Which is the most effective method?

What is the missing 4-digit number?

| | Th | H | T | O |
|---|----|---|---|---|
| | — | — | — | — |
| + | 6 | 3 | 9 | 5 |
| | 8 | 9 | 4 | 9 |

Use the digit cards to complete the calculation.



| | | |
|-------|--|--|
| | | |
| - | | |
| <hr/> | | |
| | | |

The digits in the shaded boxes are odd.

Is there more than one answer?

Task 3 - Reasoning

Roll a 1 to 6 die.
Fill in a box each time you roll.

$$\square\square\square + \square\square\square =$$

Can you make the total:

- An odd number
- An even number
- A multiple of 5
- The greatest possible number
- The smallest possible number

Write down your telephone number.

Separate the digits into one-digit or two-digit numbers and find the total.

Investigate separating the digits into other one-digit or two-digit numbers, and find the total each time.

What is the largest answer you can get by separating the digits into one-digit or two-digit numbers and finding the total?

What is the smallest answer you can get?

Amir and Tommy solve a problem.

When I subtract 546 from 3,232 my answer is 2,714



Amir

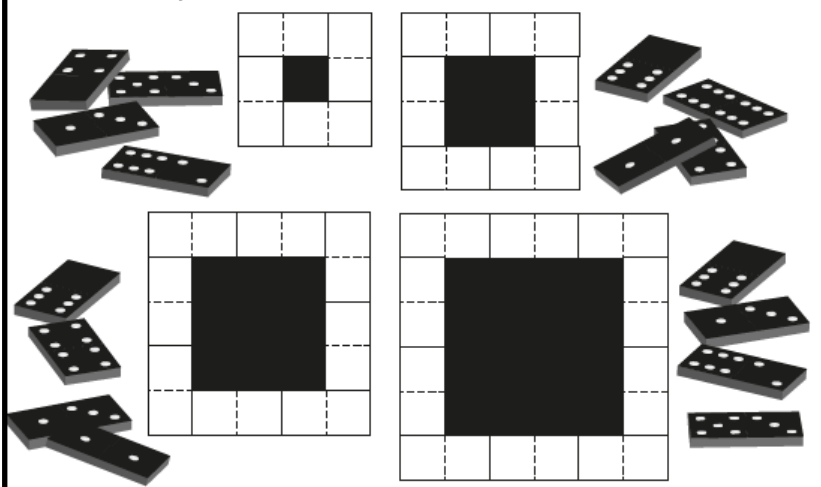


Tommy

When I subtract 546 from 3,232 my answer is 2,686

Who is correct?
Explain your reasoning.
Why is one of the answers wrong?

Using a set of normal double-six dominoes, choose dominoes so that the sum of each of the four sides in each domino square totals 12.



Start with the number 888
Roll a 1-6 die three times, to make a 3-digit number.
Subtract the number from 888
What number have you got now?

What's the smallest possible difference?

What's the largest possible difference?

What if all the digits have to be different?

Will you ever find a difference that is a multiple of 10? Why?

Do you have more odd or even differences?



The aim of the game is to get a number as close to 5,000 as possible.

Each child rolls a 1-6 die and chooses where to put the number on their grid.

Once they have each filled their grid, they add up their totals to see who is the closest.

| | Th | H | T | O |
|---|----|---|---|---|
| | ? | ? | ? | ? |
| + | ? | ? | ? | ? |
| | | | | |

